

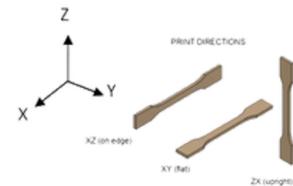
KRATIR PA11 CF



Material class: Polyamide 11 / Carbon Fiber

High Strength & Part Repeatability

- Low moisture uptake, dimension stable
- Exceptionally ductile in Z-direction
- **97% bio-based polymer**



Property	Method	Units	Value XZ** (on edge)	Value ZX** (upright)
Mechanical properties				
Tensile Modulus	ISO 527 Type 1BA	MPa	8900	1400
Tensile Strength at yield	ISO 527 Type 1BA	MPa	no yield	no yield
Tensile Strength at break	ISO 527 Type 1BA	MPa	105	34
Elongation at yield	ISO 527 Type 1BA	%	no yield	no yield
Elongation at break	ISO 527 Type 1BA	%	4.5	10.8
Flexural Modulus	ISO 178	Mpa	8098	1471
Flexural Stress at break	ISO 178	Mpa	70	35
Flexural Strain at break	ISO 178	%	1.3	1.3
Impact Strength	ISO 180	J/m		
Impact Strength	ISO 180	kJ/m ²		

** XZ/ZX Bars cut out of 3D printed plates on edge and in Z direction printed according to guidelines

Property	Method	Units	Value
Thermal properties			
Glass transition temperature (Tg)	ISO 11357-1	°C	
Melting temperature	ISO 11357-3	°C	189
Vicat softening temperature	ISO 306/B50	°C	
Temp. of deflection under load (1.80 Mpa)*	ISO 75-1/-2	°C	180
Temp of deflection under load (0.45 Mpa)*	ISO 75-1/-2	°C	
Physical properties			
Filament diameter (+/- 0.05 mm)		mm	1.75/2.85
Density	ISO 1183-1	g/cm3	1.13
Humidity absorption (70 °C, 62% r.H.)*	ISO1110	%	0.7-0.9
Water absorption (23 °C saturated)*	ISO 62	%	1.3-1.7

* Injection moulding data



Recommended processing conditions

Nozzle temperature	Recommended 285 °C (260 °C - 290 °C)
Bed temperature	Recommended 110 °C (90 °C - 110 °C)
Chamber temperature	Recommended 90 °C (23 °C - 90 °C)
Bed material	(Textured) PEI Sheet, Glass, Carbon Fiber Plate
Adhesion promoter	Magigoo PA
Nozzle diameter	≥ 0.4mm, hardened steel nozzle
Print speed	Recommended: 30 mm/s (30-100 mm/s)
Drying instructions filament	120 °C for 6-8 hours

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